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1 Routine/Function Prologues

1.0.1 noah_almaout.F90 (Source File: noah_almaout.F90)

LIS NOAH data writer: Binary and stat files in ALMA convention

REVISION HISTORY:

```
4 Nov. 1999: Jon Radakovich; Initial Code
28 Apr. 2002: Kristi Arsenault; Added NOAH LSM to LDAS
15 Jun 2003: Sujay Kumar; ALMA version
```

INTERFACE:

```
subroutine noah_almaout (ld,tile,gindex)
```

USES:

```
use lis_module      ! LIS non-model-specific 1-D variables
use tile_module    ! LIS non-model-specific tile variables
use grid_module    ! LIS non-model-specific grid variables
use noah_varder    ! NOAH-specific variables
use time_manager, only : get_nstep

implicit none
```

ARGUMENTS:

```
type (lisdec) LD
type (tileddec) tile(ld%d%glbnch)
integer :: gindex(ld%d%lnc, ld%d%lnr)
```

CONTENTS:

```
!-----
! Test to see if output writing interval has been reached
!-----
if(mod(ld%t%gmt,noahdrv%writeintn).eq.0)then
  noahdrv%numoutnh=noahdrv%numoutnh+1
  write(unit=temp1,fmt='(i4,i2,i2)')ld%t%yr,ld%t%mo,ld%t%da
  read(unit=temp1,fmt='(8a1)') ftime
  do i=1,8
    if(ftime(i).eq.(' '))ftime(i)='0'
  enddo
  write(unit=temp1,fmt='(i4)')ld%t%yr
  read(unit=temp1,fmt='(8a1)')ftimec
  do i=1,4
    if(ftimec(i).eq.(' '))ftimec(i)='0'
  enddo
  write(unit=temp1,fmt='(a6,i3,a1)') '/LIS.E',ld%o%expcode,'.'
  read(unit=temp1,fmt='(80a1)') (fname(i),i=1,11)
```

```

do i=1,11
    if(fname(i).eq.( ' )) fname(i)='0'
enddo
write(unit=temp1,fmt='(a40)') ld%o%odir
read(unit=temp1,fmt='(40a1)') (fbase(i),i=1,40)
c=0
do i=1,40
    if(fbase(i).eq.( ' ) .and.c.eq.0)c=i-1
enddo

write(unit=temp1,fmt='(a4,i3,a6,i4,a1,i4,i2,i2)')'/EXP', &
    1d%o%expcode,'/NOAH/ ', &
    1d%t%yr,'/',1d%t%yr,1d%t%mo,1d%t%da
read(unit=temp1,fmt='(80a1)') (fyrmkdir(i),i=1,26)
do i=1,26
    if(fyrmkdir(i).eq.( ' ))fyrmkdir(i)='0'
enddo

write(unit=temp1,fmt='(a9)')'mkdir -p '
read(unit=temp1,fmt='(80a1)')(fmkdir(i),i=1,9)

write(unit=temp1,fmt='(80a1)')(fmkdir(i),i=1,9),(fbase(i),i=1,c), &
    (fyrmkdir(i),i=1,26)
read(unit=temp1,fmt='(a80)')mkfyrmo
call system(mkfyrmo)
!-----
! Generate file name for BINARY output
!-----
if(ld%o%wout.eq.1) then
    write(unit=fbasename, fmt='(i4,i2,i2,i2)') 1d%t%yr,1d%t%mo, &
        1d%t%da,1d%t%hr
    read(unit=fbasename,fmt='(10a1)') ftimeb
    do i=1,10
        if(ftimeb(i).eq.( ' ))ftimeb(i)='0'
    enddo
    write(unit=fbasename,fmt='(a9)') '.NOAHgbin'
    read(unit=fbasename,fmt='(80a1)') (fsubgb(i),i=1,9)

    write(unit=fbasename,fmt='(80a1)')(fbase(i),i=1,c), &
        (fyrmkdir(i),i=1,26), &
        (fname(i),i=1,11),(ftimeb(i),i=1,10), &
        (fsubgb(i),i=1,9)
    read(unit=fbasename,fmt='(a80)')filengb
!-----
! Open statistical output file
!-----
if(noahdrv%noahopen.eq.0)then
    file='Noahstats.dat'

```

```
call openfile(name,ld%o%odir,ld%o%expcode,file)
if(ld%o%startcode.eq.1)then
    open(65,file=name,form='formatted',status='unknown', &
          position='append')
else
    open(65,file=name,form='formatted',status='replace')
endif
noahdrv%noahopen=1
endif

write(65,996)'      Statistical Summary of Noah output for: ', &
               ld%t%mo,'/',ld%t%da,'/',ld%t%yr,ld%t%hr,:',ld%t%mn,:',ld%t%ss
996   format(a47,i2,a1,i2,a1,i4,1x,i2,a1,i2,a1,i2)
write(65,*)
write(65,997)
997   format(t27,'Mean',t41,'Stdev',t56,'Min',t70,'Max')
endif
if(ld%o%wout.eq.1) then
    open(58,file=filengb,form='unformatted')
endif
if(ld%o%wout.eq.1) then
    if(ld%o%wtil.eq.1) then
        call noah_tileout(ld,tile,58,65)
    else
        call noah_gridout(ld,tile,58,65)
    endif
endif
noah%count=0 !reset counters

write(65,*)
write(65,*)
endif
```